

REMARKS

Applicants thank Examiner for acknowledging receipt of foreign priority document, Japanese Application No. JP2000-294974, that had been submitted pursuant to 35 U.S.C. § 119 in parent application number 09/963,966.

As requested by Examiner, the Title has been amended to "ELECTROCHEMICAL THIN FILM POLISHING METHOD AND POLISHING APPARATUS."

Applicants thank the Examiner for the indication of allowable subject matter in claims 14 – 17 and 19 – 35.

Applicants respectfully request reconsideration of Examiner's rejection of claims 13 and 18 under 35 U.S.C §103(b). In rejecting claim 1, Examiner asserts that *Zhou et al.* (U.S. Patent No. 6,402,931) teaches Applicant's invention in Figure 2, 3b, and 11; Column 8, lines 24 – 35, and Column 15, lines 35 – 44. The *Zhou* patent is directed to the "electrochemical shaping of metals, electrochemically polishing metal surfaces, and electrochemical deburring of metal articles." (Abstract of the invention). As disclosed in Figures 3b and 11, the *Zhou* patent is directed to the shaping of metals, and fails to teach or suggest the applicability of such a method to the polishing of semiconductor layers. For example, the text cited by Examiner in his last Office Action, Column 15 lines 35 – 44, discloses the use of a direct impingement of flow in forming the P-area 418. While such a method and apparatus is well-suited for metal shaping, it does not teach or suggest any applicability to the art of semiconductor polishing.

Appl. No. 10/697,814
Amdt. Dated August 18, 2004
Reply to Office Action of May 27, 2004

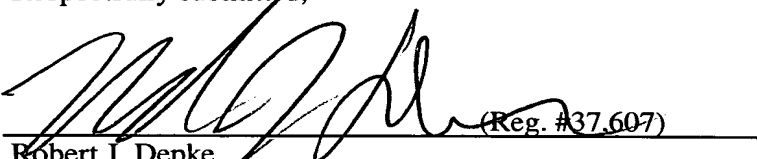
Alternately, Applicant's invention is directed to an electrochemical polishing apparatus, wherein a substantially parallel flow of processing solution causes projecting portions of film to be removed without the traditional mechanical stress involved in chemical mechanical polishing. Applicant's invention is ideally suited to the electro-chemical processing of thin metal films deposited on semiconductor devices in the quarter-micron design sizes, wherein chemical mechanical polishing causes stress fractures in such small devices. *Zhou* fails to teach or suggest such an invention.

In light of the foregoing, Applicants respectfully request Examiner withdraw his 35 U.S.C. § 103 rejection, and place claims 13 and 18 in condition for allowance. Accordingly, Applicants submit that all claims now stand in condition for allowance.

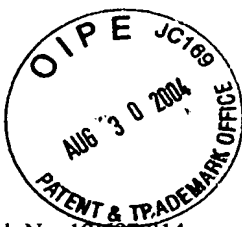
Respectfully submitted,

Date:

8/27/04

 (Reg. #37,607)

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